

^{187}Ta

Benlliure et al. published the discovery of ^{187}Ta in the 1999 paper entitled “Production of neutron-rich isotopes by cold fragmentation in the reaction $^{197}\text{Au} + \text{Be}$ at 950 A MeV” ([1999Be63](#)). A 950 A·MeV ^{197}Au beam from the SIS synchrotron of GSI was incident on a beryllium target and ^{187}Ta was produced in projectile fragmentation reactions. The FRS fragment separator was used to select isotopes with a specific mass-to-charge ratio. “In the right part of [the figure] the projected A/Z distributions are shown for the different elements transmitted in this setting of the FRS. In this setting the isotopes ^{193}Re , ^{194}Re , ^{191}W , ^{192}W , ^{189}Ta , ^{187}Hf and ^{188}Hf were clearly identified for the first time. Only isotopes with a yield higher than 15 counts were considered as unambiguously identified.” Although not explicitly mentioned in the text clear evidence for the presence of ^{187}Ta and ^{188}Ta can be seen in the A/Z isotopic identification plot. It is not clear why Benlliure et al. did not consider ^{187}Ta and ^{188}Ta as new isotopes, because no previous publications reporting the observation of these nuclei could be found.

Adapted from reference ([2012Ro36](#))

[1999Be63](#) J. Benlliure, K. H. Schmidt, D. Cortina-Gil, T. Enqvist *et al.*, Nucl. Phys. A **660**, 87 (1999).

[2012Ro36](#) R. Robinson and M. Thoennessen, At. Data Nucl. Data Tables **98**, 911 (2012).

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